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## **Cover Page**

# Exhibit 9.12

Presented during cross-examination of Staff witness Jerry Albrecht

**Docket No. 6680-UR-117** 

## Public Service Commission of Wisconsin Direct Testimony of Jerry Albrecht Gas and Energy Division

## Wisconsin Power and Light Company Docket 6680-UR-115

### September 12, 2006

| 1  | Q. | Please state your name and occupation.  |
|----|----|---|
| 2  | A. | My name is Jerry Albrecht. I am employed in the Gas and Energy Division at the Public       |
| 3  |    | Service Commission (Commission) as a Senior Rate Engineer. I have been employed at          |
| 4  |    | the Commission for over 20 years. I have reviewed and prepared both electric and water      |
| 5  |    | cost-of-service studies and designed electric and water rates for numerous utility rate     |
| 6  |    | proceedings, including prior proceedings involving Wisconsin Power and Light Company        |
| 7  |    | (WP&L).   |
| 8  | Q. | What is the purpose of your testimony?  |
| 9  | A. | The purpose of my testimony is twofold. First, my purpose is to present an alternative      |
| 10 |    | electric revenue allocation and electric rate design proposal in this proceeding. Secondly, |
| 11 |    | I will respond to changes proposed by WP&L regarding transformer rentals.                   |
| 12 | Q. | What exhibits are you sponsoring in this proceeding?  |
| 13 | A. | I am sponsoring two exhibits, Exhibit (JA-1) and Exhibit (JA-2).                            |
| 14 | Q. | Were these exhibits prepared by you or under your direction?                                |
| 15 | A. | Yes.  |
| 16 | Q. | Please describe Exhibit (JA-1).   |
| 17 | A. | The exhibit contains three schedules. Schedule 1 summarizes the present and proposed        |
| 18 |    | revenue for the major electric cost-of-service groups. Schedule 2 is a summary of the       |
| 19 |    | present and proposed revenue for each electric rate class. Schedule 3 shows the details of  |

the present and proposed electric rates and revenue for each rate class, based on the

Commission audit staff's estimated final fuel revenue and proposed revenue requirement
and my alternative rate design.

Q. Please describe the recent chronology of electric rate change proceedings for WP&L.

In August 2005, the Commission authorized the current base rates for WP&L in docket 6680-UR-114. In December 2005, the Commission authorized interim fuel surcharges in that proceeding. A decision is pending before the Commission to replace the interim fuel surcharges with final fuel surcharges. It is likely that the final fuel surcharges will be authorized before the hearing in this proceeding.

Q. What present revenues did you use in your analysis?

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WP&L based its present revenues of \$870,842,000 on its base rates with no fuel surcharges. Commission audit staff forecast of present revenue of \$968,064,000 uses the base rates plus the interim fuel surcharge. My calculation of present revenue that incorporates the interim fuel surcharge is slightly higher due to a correction I made to the pricing of WP&L present revenue at base rates.

Commission audit staff estimates that the final fuel surcharge will produce revenues that exceed the revenue from base rates by approximately \$50,000,000. My calculation of the resulting present revenue is approximately \$920,865,000. This is the forecast of present revenues that I used for revenue allocation and rate design. This is less than the present revenue forecast based on base rates plus interim fuel surcharges. What is the revenue requirement did you use for electric revenue allocation and rate

A. I used an electric revenue requirement of \$971,227,000. My proposed electric rate design includes the estimate of final fuel revenue in the present revenues. The resulting electric revenue increase is approximately \$50,362,000, or 5.5 percent, above the base rates plus estimated final fuel surcharge revenue.

#### REVENUE ALLOCATION

- Q. Please describe the general principles you used in establishing your alternative electric
   revenue allocation.
  - A. I developed this alternative revenue allocation using the cost of service information submitted by Commission staff witness Dr. James B. Petersen in this proceeding, along with other information such as the bill comparisons, and bill impacts. I also used my knowledge and experience as a senior rate engineer gained working on previous WP&L rate cases and numerous other rate proceedings. Commission staff's electric COSS analysis supports a significantly lower than average increase for the Small Use customers and higher than average increases for the Commercial and Industrial classes of customers.

My revenue allocation generally follows from the Commission staff electric cost studies. The impacts of the staff's revenue allocation are significantly lower than average increases for the Small Use customers (residential, small commercial, and lighting rate classes) and larger than average increases for the Commercial and Industrial customer classes. However, I limited the individual rate class increases to approximately plus or minus 2 percent around the overall electric increase.

My revenue allocation reflects average increases for the major cost-of-service groups that range from approximately 3.5 percent to 7.5 percent. Schedule 1 of

| Exhibit (JA-1) shows the increases of 4.2 percent for sma | Il use customers, |
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- 2 6.9 percent for commercial customers, and 7.1 percent for industrial customers. The
- 3 miscellaneous and lighting classes are part of the small use group and receive a
- 4.1 percent increase. These numbers are based on using present rates that include an
- 5 estimate of the final fuel revenue. In addition, Schedule 1 of Exhibit \_\_\_\_ (JA-1) shows
- 6 the increases for the same groups based on current rates including interim surcharges.
- 7 Q. How would you propose to address any significant changes in the revenue requirement
- 8 subsequent to the Commission deciding the issues in this case?
- 9 A. I would propose that the changes be allocated using the appropriate cost allocator if
- 10 known. For example a large increase in gas costs to operate the company's generators is
- an energy related cost and therefore an energy allocation would be used. If an allocator
- cannot be identified for various changes in the revenue requirement then a neutral
- allocator such as present revenues could be used. Otherwise, the ratio of revenue for
- each customer class divided by the total sales revenue could be used to adjust to the final
- revenue requirement.
- Q. Please describe the general process of revenue reallocation and revision of the electric
- 17 rate design subsequent to the Commission deciding the issues in this case.
- 18 A. First, I will update the revenue allocation and rate design to reflect the Commission's
- decisions in this case, using rate design principles and my experience. Adjustments to
- address any significant changes in the revenue requirement would be done as described
- above. The Commission will review the revised revenue allocation and rate design and
- 22 ultimately approve a final revenue allocation rate design when it issues its Final Decision.

#### 1 RATE DESIGN

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- 2 Q. What guidelines do you generally use to develop the rate design?
- 3 A. The rate design process balances multiple objectives. I used Commission staff's cost
- 4 study information in this proceeding as a guide in developing rates, however, I also
- 5 considered many other important factors. Mr. James C. Bonbright, lists the following
- 6 ten characteristics of a good rate design:
- 7 1. Yields the total revenue requirement effectively;
- 8 2. Produces stable and predictable revenues;
  - 3. Results in no unexpected changes in the rates themselves;
- 4. Promotes static efficiency, which in turn discourages wasteful use and promotes justified use;
  - 5. Reflects all present and future private and social costs and benefits caused by using the service;
  - 6. Apportions the costs of service fairly among ratepayers;
  - 7. Avoids undue discrimination in rate relationships (no subsidies);
  - 8. Promotes dynamic efficiency by encouraging innovation and economic responses to changing demand and supply patterns;
- 9. Creates simplicity, certainty, convenience of payment, economy in collection, understandability, public acceptability, and feasibility of application;
  - 10. Eliminates controversy about interpretation.
- Q. Does your rate design reflect all of these characteristics?
- A. No. These characteristics represent goals rather than a rigid prescription for proper rate design. I believe my rate design achieves many of the above goals. I generally used the

<sup>&</sup>lt;sup>1</sup> James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates*, Public Utility Reports, 1988.

- above goals and applied my experience as a rate engineer to develop my electric rate

  design alternative.
- 3 Q. Please describe your electric rate design.

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- 4 Α. This design maintains the current rate structure, which includes seasonal rates, daily 5 customer charges, and mandatory or optional time-of-day (TOD) rates for almost all 6 customer classes. I generally increased customer, energy and demand charges to achieve 7 the Commission audit staff's revenue requirement. The electric rate design does not 8 include any customer class decreases. I endeavored to maintain some of the existing rate 9 relationships such as the differences between summer and winter charges. I also 10 considered customer bill impacts. I limited the increases to any customer class to 11 approximately 2 percent above the overall increase based on the Commission audit staff 12 revenue level. I will discuss some specific issues regarding electric rate design below.
- Q. Do you have any comments regarding WP&L witness Mr. Brian Penington's proposal for
   the High Load Factor Energy Credit?
  - A. Yes. The current provision shifts costs from higher load factor Cp-2 customers to the average and lower load factor customers on that same rate class. WP&L's proposes to expand the availability to the Cp-1 rate class as well. The result of this change would also result in lesser increases for the higher load factor Cp-1 customers and higher increases for the average and lower load factor customers on that same rate class. This is consistent with the Commission decision to approve this provision in WP&L's last base rate case, docket 6680-UR-114, for the Cp-2 class. The current rate was approved on an experimental basis and WP&L's proposes to maintain the experimental nature of this

- tariff. For these reasons, I have included a comparable load factor credit for both Cp-1 and Cp-2 customers in my electric rate design alternative.
- 3 Q. Did you also review WP&L's avoided capacity cost analyses?

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- 4 A. Yes, I reviewed the interruptible credits and parallel generation buyback rate analysis
  5 contained in Mr. Penington's Exhibit \_\_\_\_\_ (BEP-1).
- Q. Do you have concerns regarding the proposals to increase the interruptible credits for
   WP&L?
- A. Yes. As indicated in the direct testimony and exhibit of Mr. Penington, the company proposes a rate design that significantly increases the interruptible credits by approximately 35 percent. Mr. Penington also proposed using the avoided capacity cost from the Sheboygan Falls combustion turbine project as the basis for setting interruptible demand credits. WP&L used \$67.00 per kW-year as the cost of avoided capacity, which is higher than the annual average cost per kW associated with this plant.

WP&L's \$67.00 per kW is significantly higher than the costs that are currently reflected in the interruptible credits available to WP&L's customers. Given the current market and the availability of electric capacity at much lower prices this value is too high to use as the avoided cost basis for determining retail rate provisions. I used a figure of \$50.55 per kW-year as the avoided capacity cost of a combustion turbine to calculate interruptible credits. This figure is based on the Commission finance staff's economic analysis of the cost of a generic rate base combustion turbine and reflects WP&L's current capital structure and current interest rates.

Q. Are you sponsoring an exhibit as an alternative to WP&L's avoided cost analyses?

- A. Yes. I am sponsoring Exhibit \_\_\_\_\_ (JA-2), which contains two schedules. Schedule 1
  is my analysis of interruptible costs and credits. Schedule 2 is my analysis of WP&L's

  parallel generation buyback rates. Based on the my analysis of combustion turbine costs

  and the "peaker" methodology that the Commission has used in numerous rate cases, I

  conclude that the avoided capacity cost is approximately the same as WP&L's current

  interruptible credits.
- 7 Q. Are you proposing any changes to the interruptible credits for WP&L?
- 8 A. No. Exhibit \_\_\_\_ (JA-2), Schedule 1 supports no change in the credits at this time.
- 9 Q. Do the avoided capacity cost calculations affect any other rates?

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- 10 A. Yes. A portion of the parallel generation rates are based this calculation.
- 11 Q. Do have any concerns regarding WP&L's proposal for parallel generation rates?
- 12 A. Yes. WP&L's proposed parallel generation buyback rates do not reflect the full avoided
  13 cost from the "peaker" methodology that the Commission has accepted in past utility rate
  14 cases. Mr. Penington argues that the capacity costs should not be included in the
  15 buyback rates because WP&L does not control the dispatch of the customer owned16 generation that the company buys power from under these rates.

However, the Commission determined that capacity costs are appropriate for inclusion in the buyback rates, when it issued its generic order in dockets 05-ER-11, 12, and 13. In addition, the Commission has approved the inclusion of these costs in previous electric rate case decisions. The buyback rates reflect both energy and capacity costs. The annual capacity cost per kW is divided by the number of on-peak hours in a year and that value is added to the average on-peak marginal energy. Therefore, WP&L

- pays for capacity costs for only those on-peak hours that a parallel generation customer is
   producing.
- 3 Q. Please describe Schedule 2 of Exhibit \_\_\_\_ (JA-2).
- 4 A. This schedule shows WP&L's parallel generation (buyback) rates, and reflects the 5 "traditional" peaker methodology, as established in dockets 05-ER-11, 12, and 13, with 6 the modifications that the Commission has approved in subsequent rate cases. This 7 analysis is consistent with analyses provided in other rate cases for major utilities in 8 Wisconsin. This analysis supports significant increases in both the on-peak and off peak 9 buyback rates for every voltage level. These parallel generation rates represent the level 10 that WP&L would pay parallel generators that sell energy to the utility. The significant 11 increase is primarily due to higher marginal energy costs. The on-peak rates would 12 increase approximately 54 percent and off-peak rates would increase approximately 13 32 percent under my proposal. My proposed rates differ from WP&L's cost analysis, due 14 to differences in capacity value used in each calculation and the value of marginal energy 15 costs. My on-peak rates are higher while the off-peak rates in WP&L's cost analysis are higher. 16

The buyback rate issue is also being addressed by Commission staff witness

Mr. John Feit.

- Q. Do you have any concerns about the pricing of renewable energy under WP&L's SecondNature program?
- A. Yes. WP&L's analysis shows that its current costs for providing renewable energy is
  lower than the current 2.0 cents per kilowatt-hour that it is charging customer under the
  Second Nature program tariff. The Commission might choose to lower this adder as has

been done in a recent rate case for Wisconsin Electric Power Company in docket 05-UR-102.

#### TRANSFORMER RENTALS

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- 4 Q. Do you have any comments regarding WP&L's proposed changes in the transformer rental charges and the proposed tariff language changes?
- 6 A. Yes. WP&L is proposing significant increases for rental charges for distribution 7 transformers. These changes result in a 54 percent increase in revenue from the Cp-8 8 tariff. However, WP&L's cost for all of the rented distribution transformers has not 9 increased that significantly. It is only the cost of the newer transformers that has 10 increased more over the last several years, as Mr. Penington claims. WP&L's proposal 11 would increase the rate for all of the rented distribution transformers not just the newer 12 ones. This results in large increases for many customers that are still renting the same old transformer that WP&L installed many years ago. This raises a fundamental question 13 14 whether WP&L's current tariff language should be changed. The pricing approach under 15 the current Cp-8 tariff may have been reasonable in the past when there were lesser 16 annual increases in transformer costs. An alternative to address the significant increase in 17 transformer costs would be to change the Cp-8 tariff so WP&L charges each rented 18 transformer based on its installed cost. This is an approach that has a precedent in 19 WP&L non-standard lighting, NL-1 tariff language. This may be problematic for 20 existing rental transformers if WP&L does not have actual installed cost. If this is the 21 case, an alternative to raising the rental rates for all rental transformers would be to apply 22 the proposed higher rates to only those transformers installed after January 1, 2003. The current rates would apply for the older transformers. If the Commission adopts this 23

- alternative it could also order WP&L to work with Commission rates staff on a better
- 2 approach for collecting the cost of rental transformers. In addition, I propose that any
- 3 increase in Cp-8 revenue be added to other operating revenues so that it will offset the
- 4 increase in Cp-8 from the sales of electricity.
- 5 Q. Do you have any comments regarding WP&L's proposed tariff language changes?
- 6 A. Yes. WP&L is proposing additional tariff language that would allow it to increase the
- 7 Cp-8 transformer rental charges if it does not file for a rate change in more than two
- 8 years. Utilities are prohibited from increasing rates unless a hearing is held.
- 9 Q. Do you have any comments regarding WP&L's Second Nature tariff?
- 10 A. Yes. The Commission rates staff opposes WP&L's proposal to remove the exemption of
- fuel adjustment charges for energy sales under the Second Nature tariff.
- 12 Q. Does that complete your direct testimony?
- 13 A. Yes.

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